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“Highway Safety Priorities”

It's indeed an honor to be here, back home at AAAM. I was nominated on June 25, 2001, and was sworn in on August 7, 2001. Unfortunately AAAM wasn't able to hold the annual meeting last year, which I very much regret. So here I am with you today and a lot has happened over the last year. I especially want to acknowledge the work of Hugo Lander and the ward directors in keeping AAAM united through a very difficult year. I also want to commend Jeff Augustine for agreeing to be your President next year; it is indeed a formidable challenge.

Speaking of Presidents, this is a slide of my boss. In fact, both of those guys in the slide are my bosses. President Bush said something to a bunch of us, politically appointed, Senate confirmed people when he got us together last February. He said, “I may be your boss, but remember, you don't work for me. You work for the American people.”

He really means that and so does Secretary Mineta, who continually reminds me and everyone he comes into contact with that safety is our number one priority at the Department of Transportation. The Secretary has had a grueling, grueling year with the events of September 11th. Despite this, he never lost his commitment to highway safety.

I just want to tell you a little vignette so that you can appreciate the kind of leadership we have in the Secretary. When I interviewed for this job I was going on in my usual, sermonizing fashion, talking about the ravishes of traffic injury and death on America's highways. The Secretary is known for doodling as he listens, so he had a legal pad and he was doodling in the middle of my sermon. Finally he turns the legal pad around and I see he has written on it 41,821, and under that he wrote 16,000. He said to me, "I think this is the problem you're talking about."

So the man understands the numbers of fatalities on the road each year and he understands alcohol related fatalities. He really gets it, so it is indeed a real pleasure for me to serve in this Administration, although, once again, I want to remind you that it is the American people that we work for.

So in preparing for today Dennis and I thought it might be interesting to talk about how we are reprioritizing our efforts during this Administration and to focus these remarks specifically on the goals and priorities we've developed at NHTSA for 2003. At the end of that I will talk a little bit about reauthorization, what that is, and how you can become a part of it.

So if you all know these figures on the screen are the latest FARS data that came out at the end of July. You can see that total fatalities remain as flat as a pancake in spite of an increase in vehicle miles traveled. Fatalities haven't gone up, which some people

consider to be somewhat of a victory. Personally, I find it very difficult to call forty-two thousand dead people a year a victory, and so I won't.

But I am happy to point out a specific significant decrease in persons injured --- this comes of course from our data systems (NASS GES). We don't know the reason for this decrease but the data people are searching for the causes.

As you can see fatal crashes are flat, non-fatal crashes are flat; injury crashes again are a bit down. There is also some good news. It's about kids. I can't take a lot of credit for this, but a lot of you can take the credit. In fact, this is also the result of actions taken in the last Administration, and many of those people can also take credit.

This came about because people responded to a disaster, the disaster of children being killed by airbags. Because of all the public education that started back then and continued, more children these days are seated in the backseat, the safest place in the vehicle. And for the first time in my memory this showed a real victory for public education as opposed to enforcement or engineering solutions. The fact that today over 90% of children under age 2 are restrained in child safety seats is directly related to the result you see here: a statically significant decrease of 8.6% in children killed compared to the prior year. For children in the 5 to 15 year age group, once again, we see a great success.

That was the good news. The bad news is that we still have a mode of transportation that is highly dangerous. In fact, it is inherently dangerous but people love it. They love it so much that more and more people are doing it. I'm 46 years old and it seems to me that this is the median age for people who are doing this thing more and more each year. The thing I am talking about is motorcycle riding.

This is creating a very disturbing trend shown here in higher motorcycle fatalities. These data are obviously not corrected for exposure but even so, the rates are high. Whether or not this is causative aside, this is a fact: helmet use is plummeting across this country. States have been repealing motorcycle helmet laws at a record pace.

In fact our survey data show that helmet use is declining dramatically. The observational surveys look for DOT approved helmets. If the riders are obviously in violation they are not included in the helmet count. If there is any doubt on the part of those doing the observations then they are included, but even with that conservative measure, helmet use has dropped 14 percent points.

In May, the Secretary held a press conference and we issued a report on the economic impact of motor vehicle crashes for the year 2000. There is a whole stack of those reports out on the desk out there. I think this really ought to be required reading for any injury control professional. We had an all star cast work on this, headed by Larry Blincoc in NHTSA along with Ted Miller. Ted, I see you in the audience and thank you

very much for your effort on this. This was a prodigious work that we are very proud of it.

What we are not proud of is the fact that motor vehicle crashes consumed \$230 billion in 2000, or 2.3% of the U.S. gross domestic product. This amounts to a hidden tax of \$820 for every man, woman and child living in America.

Injury is expensive and it is getting more expensive as medical costs rise. In fact the lifetime medical cost for 2000 was \$32.6 billion, just about what the entire country spends on the Federal Highway budget. I also think this report should be required reading for anybody who thinks that traffic injury is a solitary issue and that it really only affects you, the person who drives. In fact it affects all of us.

So we did some analysis. You know, I should back up. When I took this job I promised my staff that no matter how good the idea seems we wouldn't pursue unless we had the data to back it up. And we tried very, very hard to be data driven. So now it is very important at reauthorization time that we really zero in on those things that can make a difference. As the economy is not in very good shape and money for programs shrink, we have to focus on those things that can really make a difference.

So I asked our planning office to prepare an analysis to show the expected number of lives to be saved by the different countermeasures we might pursue. This slide shows the result of that analysis. If we can get 90% seat belt use nationwide, which is represented

in the beige section. So if we make improvements in safety belt use along with reductions in alcohol-impaired driving, we get to about two-thirds of the possible lives saved. So it's no surprise where we really need to put a large amount of our effort into these two areas.

By comparison, if we could just park every large truck and don't let them drive to meet their expected reduction in fatalities, which by the way mostly all occurred in the cars they hit, we'd get another 12% of lives saved, and so forth. Now this obviously won't happen, so the belts and booze areas absolutely have got to be the very top priority.

I should also point out that, with respect to seat belts and alcohol, there were two long-standing goals set back in 1995. These were very optimistic stretch goals. Little did anybody know back then that Congress would actually hold staff responsible for meeting these goals: 90% belt use by 2005, and no more than 11,000 alcohol fatalities by the year 2005.

When I arrived at NHTSA we already knew these goals would be impossible to meet, so we went through a process to reset our seatbelt goals using two new methodologies.

These were: 1) the conversion non-users to belt use; and 2) asking the states what belt use rate they thought they could achieve if they did everything possible.

With respect to alcohol we looked at more recent trends, to take those into account in setting realistic, achievable goals. So driven by the data this slide shows our 5 priority

areas for 2003 and beyond. Other things that are not on here that we think that are very important have to do with crash avoidance and emerging problems like rapid growth in the population of elderly drivers and the increasing use of telematics in vehicles and other things like that which are coming at us in a hurry. We know those are important and we think that the biggest frontiers, the biggest gain to be made in the future, really, are in crash avoidance. However, we have to pay attention to what the data tell us today, and this leads us to these five priority areas.

This slide shows a goal that was not revised. We have talked to the Secretary about this, our current fatality rate. It is now 1.52 fatalities per 100 million vehicle miles traveled. What we are working toward from this current rate is tough, and we actually asked to revise this and he said, "No, you can't. I want you to work as hard as you possibly can to get there. I want you to tell me what needs to be done to get there and I'll help you get there."

So this is the goal, 1.0 fatalities per 100 million vehicle miles traveled, and what's great about it is, he didn't just put this on NHTSA. He told FHWA and FMCSA that it is their responsibility too. These are three modes in the Department of Transportation that really deal with surface transportation issues, things that are not railroad and not mass transit. This will be a challenging goal to meet. As you see in this slide we've been able to hold in check the fatality rates over the last six or seven years, this in spite of increasing number of vehicle miles traveled on the highways. If we do nothing, if we just

manage to hold the fatality rate steady where it is now, with a projection of more vehicle miles increasing exposure, we will be at 50,000 fatalities by 2008.

We will have to work as hard as we possibly can to even maintain the current fatality rate, which is 1.52. Now we are being asked to get that down to 1.0 fatalities per 100 million VMT, which means that somehow, we have to come up with 9,000 additional lives saved by 2008.

We're not going to get there by paving America and we're not going to get there through small, incremental changes in vehicle safety design. So we turn to seatbelts. As Ric Martinez used to say, when it comes to belt use we have already picked the low hanging fruit and what's left is not so low hanging any more. We are going for the hard to reach folks now.

The results of our most recent NOPUS survey (National Occupant Protection Use Survey) just came in, and the measured national belt use rate for 2001 is 75 percent. That's great. It is up from last year. But it also means that we still have 25 percent of the people who aren't buckling up. The increase to 75% use means that 11,000 fatalities were prevented that would have happened otherwise, 325,000 serious injuries were avoided, and there was a savings of \$50 billion.

At the same time the bad news is that the failure by some people to use seatbelts caused an estimated 9,000 thousand deaths, and 143,000 people injured needlessly and \$26 billion in economic costs incurred, all from the failure to use seatbelts.

So once again we will redouble our efforts to get belt use up across the country. We are doing this in several ways. Our goal of 78% national belt use actually will buy us a lot. Every percentage point increase from the current 75% level means that 2.3 million more people are buckling up, 270 lives are saved, and \$800 million are saved. For every percentage point increase there are also 6,400 critical injuries that won't be clogging up our trauma centers and our emergency departments.

Looking back at the history of this, back when seat belt laws began to be passed by the states and the message was "buckle up for safety, buckle up", that's where you see this increase. Then we get enforcement going along with public education, and look what happens to the rates: zoom! Then the rate levels out again after that. The Buckle Up America campaign began in '97. The rate is flat again after that.

Finally, in 2000, we started doing something in other states that we had been doing in North Carolina since 1993, and that was using a methodology that we call Click It or Ticket. This is a high visibility enforcement campaign with paid media. Law enforcement is behind this because they know it works.

Speaking of belt enforcement, here's New Hampshire on this map, a state that should be in red. With primary laws, you can get a ticket if an officer observes that you are not buckled up. In states with secondary laws, seen here in green on this map, you can't get a ticket unless you're cited for something else.

We know that primary seat belt laws work. You can see that in our NOPUS survey, where there's 11 point difference in belt use between the primary law states and the secondary law states. It is very consistent.

The good news is in front of you: belt use is up 2 percent. That's real, that's a real boon. That increase means a saving of \$1.6 billion in economic costs. It's 4.6 million more people using seat belts than there were in the previous year, 12,000 fewer injuries and about 520 lives saved. That's great news. The other good news is that the primary law states, as a group, have reached a milestone this year. They have reached 80% belt usage, which is wonderful news.

Now we're trying to take this news out and talk to people about it. In May I went to 10 States to talk to 5 governors and some of those who were secondary law States. We said to them that a primary belt law is needed. As you sit here today you can think about what you can do in your State, let me tell you: my agency supplies data to states that are considering changes to their laws, so please ask us.

The Click It or Ticket campaign was a huge success in North Carolina. When this was applied to 12 other states across the country that geographically diverse and ethnographically diverse, the model worked again. The combination of paid media, earned media and vigorous enforcement resulted in a nine-percentage point increase in belt use in the Click It or Ticket states versus less than a half percent in the other states. The results are clear, showing once again the effectiveness of vigorous and highly publicized enforcement.

The priority area is impaired driving. AAAM has really good people who here, those who have the lead in the academic community, shining the light on the issue of impaired driving in this country. Although I really appreciate that, we are not getting anywhere on this issue. There was a .4% bump between 1999 and 2000, and once again, from 2000 to 2001, the FARS data shows that the numbers are flat. We are just not getting anywhere in reducing fatalities from impaired driving.

The current rate is .63 fatalities, and that's not going to get us where we need to go. We told Congress we'd be at .53 by the end of 2003, which would represent 2000 lives saved. I have told our staff that we're going to do another three weeks of highly visible enforcement with seat belts in 2002. We have a project team that's devising a plan that will include not just engineering, but also technology assistance, enforcement and public education.

As part of the Appropriation's bill a couple of years ago, a sanction was put in that said that there would be transfer of funds if states did not enact a .08 BAC. We were certainly were glad to see that happen, because .08 keeps healthy people healthy. But it may not solve all our problems. The states in yellow on this map are the holdout states. But they might come along to make sure that people who drink don't drive.

This shows our real problem, on the left axis here. There you see the BAC of drivers involved in fatal crashes. If you look at .08, which is right here and look at the area under the curves, you will see the problem for what it is. This is public tolerance. The people who are inebriated to this level are people who are drinking to get drunk and then they get on the road. These are not social indiscretions. These are people who are sick, they have an illness, they need intervention and they need treatment. We have no way to get them there. Our court system is absolutely stacked against getting these people any treatment.

There are a lot of lawyers in this room. I would encourage you to talk to your colleagues about this. This is a serious situation when you can open the yellow pages and see the biggest ads that say "got your DUI yet?" That's should not be acceptable in this country. I will encourage you to become an activist for this very important cause, the cause that results in 17,000 dead people each year.

So there's a lot more to do. We are working to strengthen the laws in states. This includes improvements in data collection and more training for judges and prosecutors.

We have been working with very important groups in Washington such as the District Attorneys Association and others to conduct workshops to better train those who do this important work. We want to make sure that it is not only the most junior prosecutors who handle these cases.

We are following the lead of some of the more successful jurisdictions in this country that have DWI specialists who are very successful at either prosecuting the offenders and getting them behind bars where the judge decides what is appropriate, or getting them into treatment. And finally, we've got to do something to create parity in our health and insurance system, so that we can make sure that people get the drug and alcohol treatment they need the same way that folks are treated for diabetes and high blood pressure and heart disease.

We need better state data. This is especially clear we talk to other countries about what they are doing, and we find the data are apples, and oranges and pears and lemons and limes and everything else. There's a great range of definitions used in reporting, so we desperately need a uniform reporting system to set our definitions correctly so we can compare across states and help move public opinion.

As physicians we are certainly not exempt from our part of the blame. In the emergency department we barely, if ever, screen for alcohol use disorders like we do with diabetes and high blood pressure. If you let a patient leave the emergency department with a blood pressure of 230 over 130 and didn't do anything about it, without giving a referral

for follow up, that would be malpractice. By contrast, people come in with alcohol related illnesses all the time. Fourteen percent of our car crashes where I worked in Charlotte, 14%, screened positive for alcohol use disorders. That's a huge prevalence. So we need to get off our collective rear ends on this.

Next priority issue, rollover crashes. This slide shows 5 years worth of crashes, representing about 3.4 million crashes per year, by mechanism and rollover is the beige slice, or about 8% of the total. It has been going up, by the way. This 8% you see here is averaged over 5 years.

Occupant fatalities for 2000 are shown on the right, and you can see that 31% were due to rollovers. So when we look back at the history of how we engineered vehicles and the technology that goes into vehicles, it is no surprise that most of the attention was on protecting from frontal and then from side impacts.

But the pattern is changing as we get more and more high center of gravity vehicles into the fleet. They are rolling over and their occupants are not buckled up. Here's another trend line. The purple is SUV, and you can see the trend in rollover fatalities by year, and by type of vehicle. So car fatality numbers are fairly flat, pickups are fairly flat, and there is not much change in the numbers for vans. This is basically an SUV issue.

Rollover rates by vehicle type are shown here, and once again, SUV's are over-represented. The rates for 2000 show this is not a huge problem in cars, it's a little more

of a problem with vans, it's a little more of a problem in pickups, but it is a huge problem with SUV's.

Two-third of the people who die in SUV's are killed in rollovers, and this means that something is seriously wrong. Part of what's wrong is restraint use in these vehicles. These fatalities are mostly complete ejections in fatal rollovers. Obviously if you're restrained you'll have a hard time being ejected. It does happen, but rarely. If you are not restrained there is a far greater likelihood of being ejected, and when that happens it is a very lethal thing. If you are ejected---you die.

So countermeasures are aimed not only at preventing rollovers but also preventing ejections. Here's a slide that depicts rollover resistance from real world crashes. Real world rollover per single vehicle is a metric that we use. It is the static stability factor, which is expressed as T over 2, or track width over twice the amount of the center of gravity. This is the metric we've been using for our new car assessment program for several years now. As you can see it closely parallels the real world.

We have also developed a dynamic standard, and this should be out shortly. However, if you look back historically this is pretty tight. I think the r square is about .88. So these dots on the slide in this area are mostly SUV's and pickups, these dots down here are mostly passenger cars. It amazes me that people will buy a vehicle and not for this information. It is readily available everywhere and it is on the web.

During Ric Martinez's term there was a lot of activity at NHTSA regarding vehicle compatibility. He was fond of saying that SUV's are the station wagons of the 90's. The public went crazy for these vehicles and now they're responsible for a huge part of new vehicle sales. There was activity on compatibility at NHTSA in 1998 but it stopped because of an intervening problem that surfaced at that time. This problem was the children who were killed and injured by airbags. Since then there was little activity on compatibility.

But now we are reinvigorating our efforts in that regard. There are three things that determine compatibility in vehicles. There is mass, there is stiffness, and there's geometry. Obviously big vehicles have more mass. Vehicle tests are underway now by an outside agency. I anticipate a change in our frontal testing methods, which basically demand stiffer vehicle frames and stiffer passenger compartments, and these are more aggressive by nature.

We have not done a whole lot about geometry yet, and we need to pay attention to that. There are some opportunities to affect that if we follow the data. This slide shows fatalities ratios from frontal crashes. The number on the left represents the vehicle on the left and the numbers in red are from the passenger cars. This shows the relative risks from collisions between a passenger car in a frontal impact with either a van, pickup, SUV, minivan and a compact pickup.

This next slide shows the same metric for side collisions. If you are in a passenger car you would much rather get hit by another passenger car than an SUV or a full-size pickup.

We want to do something about this and yet maintain American commerce and a market for vehicles that people want. NHTSA has done a lot of work on this in the past and has been doing more work recently on a moving barrier test with load cells, which gives us a tremendous amount of information. We are advancing in our FEM models, looking at interaction within the fleet. The automakers are also doing this very successfully and we really do believe that this is something that the automakers are going to have to look at very carefully themselves.

The average time for conception of an idea to a rulemaking over the last six years has been about four years. So if we were going to do something about this we can't simply rely on rulemaking. We have to rely on corporate citizenship and consumer information. But we will do what we can in rulemaking by following the data wherever it leads us. I understand from the AAAM board that you are planning a conference on compatibility next year. I am looking forward to the results.

The final priority is to improve our data. We have the best data in the world now. It is called FARS. I'm very proud of the folks who run FARS. Our census in FARS just fell below 4,000 cases for the first time in history. This was because of cost and because of budgetary priorities. We cannot afford to let that go by the way.

At the same time our CIREN centers are developing their electron microscope to look at these problems. It all tells a story. We have not gotten good causation data since 1975, and yet we base our countermeasures on the causes of crashes. For this reason we asked our budget folks for money to do what has been done with large trucks, which is a causation study where we actually interview everybody involved with the crash and try figure out if the crash resulted from bad brakes or choking on a peanut.

Those are tough questions to get at using the existing data source. So much depends on State data that we need to make sure that our partners in the States who are developing data for us are have the tools they need. Work that was started in the 90's with data linkage needs to be expanded to include even more states. Everything depends on State traffic records. This is the reason it takes us until August each year to get the previous years FARS data out. It is a compilation of police reports that are hand written and hand recoded. We simply cannot afford to let this crown jewel of NHTSA, which belongs to all of you, falter.

So as you weigh in with your Congressmen and Senators on these issues, I hope that you will help them pay attention to these very important data needs at the Federal level. It all depends on these data. We are hoping that, just as the CODES system was approved in the 90's, these data sources can become a link to give us a much better picture of injury.

And finally, I would like you to take some time to look at our programs at DOT, not just ours but at Federal Highways and Federal Motor Carriers, and weigh in on reauthorization. TEA-21 expires in 03, so we are now making plans for the next six years after that. I can promise you that there are many people who are weighing in heavily on how money should be allocated for safety and for highways and for trucks and so forth. I can think of no better group than this right here to present compelling data to your Representatives in Congress and to your Senators who will vote on this bill. You have the data and you have a very compelling story to tell and I hope that you will weigh in very heavily on safety, because we're it. There's nobody else out there other than the advocate community who speaks up not only for the 17,000 people who are killed by alcohol impaired drivers and 41,000 people who are killed over all, but for those who are saved by seatbelts or those who are not injured because somebody didn't drink or got a designated driver. This is incredibly important and there's a web site shown on this slide where you can submit your comments. I really hope that you would weigh in with data if you have it and opinions if you don't. Thank you very much for your time today. I will take a few questions.